

Name: \_\_\_\_\_

**at1110paper\_practice\_test (v28)**

1. Expand the following expression into standard form.

$$(2x + 9)(8x - 7)$$

$$16x^2 - 14x + 72x - 63$$

$$16x^2 + 58x - 63$$

2. Solve the equation.

$$(4x + 5)(7x + 3) = 0$$

$$x = \frac{-5}{4} \quad x = \frac{-3}{7}$$

3. Expand the following expression into standard form.

$$(9x + 8)(9x - 8)$$

$$81x^2 - 72x + 72x - 64$$

$$81x^2 - 64$$

4. Expand the following expression into standard form.

$$(3x - 7)^2$$

$$9x^2 - 21x - 21x + 49$$

$$9x^2 - 42x + 49$$

5. Factor the expression.

$$x^2 + 14x + 45$$

$$(x + 5)(x + 9)$$

6. Factor the expression.

$$9x^2 - 64$$

$$(3x + 8)(3x - 8)$$

7. Solve the equation with factoring by grouping.

$$8x^2 - 12x - 10x + 15 = 0$$

$$(4x - 5)(2x - 3) = 0$$

$$x = \frac{5}{4} \quad x = \frac{3}{2}$$

8. Solve the equation.

$$6x^2 + 10x - 1 = 4x^2 + 5x + 2$$

$$2x^2 + 5x - 3 = 0$$

$$(2x - 1)(x + 3) = 0$$

$$x = \frac{1}{2} \quad x = -3$$